

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 42

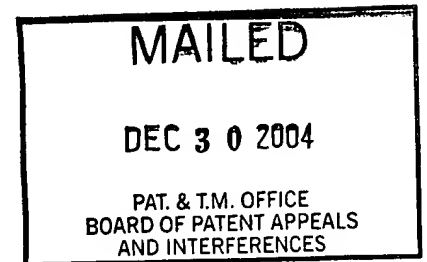
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID CURT MORRIS

Appeal No. 2004-0529
Application No. 09/328,931

HEARD: November 17, 2004



Before COHEN, STAAB, and BAHR, Administrative Patent Judges.
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 4. These claims constitute all of the claims in the application.

Appellant's invention pertains to a helicopter blade assembly. A very basic understanding of the invention can be derived from a reading of exemplary claim 1, a copy of which

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appears in the APPENDIX to the supplemental appeal brief (Paper No. 32).

As evidence of anticipation, the examiner has applied the documents listed below:

Wilford et al. (Wilford)	2,108,839	Feb. 22, 1938
Bennie	3,558,082	Jan. 26, 1971
Wallace	4,195,800	Apr. 1, 1980
Hartt	4,301,981	Nov. 24, 1981
Black	4,913,376	Apr. 3, 1990
Kunz	5,240,204	Aug. 31, 1993

The following rejections are before us for review.¹

Claims 1 and 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wallace.

Claims 1 through 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wilford.

¹ A rejection of claim 4 under 35 U.S.C. § 112, second paragraph (Paper No. 31), was withdrawn by the examiner on page 3 of the answer (Paper No. 33). The examiner also points out on page 3 of the answer that an earlier anticipation rejection based upon a reference to Kingsbury was withdrawn in the most recent office action dated December 13, 2002 (Paper No. 31).

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Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Hartt.

Claims 1 through 3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bennie.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Black.

Claims 1 and 4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kunz.

The full text of the examiner's rejections and response to the argument presented by appellant appears in the office action dated December 13, 2002 and the answer (Paper Nos. 31 and 33), while the complete statement of appellant's argument can be found in the main and supplemental appeal briefs (Paper Nos. 30 and 32).

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OPINION

In reaching our conclusion on the issues raised in this appeal, this panel of the Board has carefully considered appellant's specification and claims, and the respective viewpoints of appellant and the examiner. As a consequence of our review, we make the determinations which follow.

As explained, infra, in a new ground of rejection under 35 U.S.C. § 112, second paragraph, a review of appellant's claims 1 through 4 reveals to us language that renders the metes and bounds of the claims indeterminate, and hence indefinite. Under these circumstances, it would be inappropriate on our part to speculate as the meaning and scope of the claimed subject matter in an attempt to assess the rejections of these claims on appeal relative to the applied prior art. It follows that we are constrained to procedurally reverse all of the examiner's rejections under 35 U.S.C. § 102(b). It should be well understood, however, that this procedural reversal is not a statement as to the relevancy of the references applied by the examiner in the rejections on appeal. See In re Steele, 305 F.2d 859, 862-63, 134 USPQ 292, 295-96 (CCPA 1962).

NEW GROUND OF REJECTION

Under the authority of 37 CFR § 41.50(b), this panel of the Board introduces the following new ground of rejection.

Claims 1 through 4 are rejected under 35 U.S.C. § 112, second paragraph. Independent claim 1 is indefinite in that it is ambiguous as to the configuration of the set of rotatable blades that is covered by the claimed subject matter.² In other words, the language, when read in light of the underlying disclosure, leaves it uncertain as to what configuration for the

² It is not clear whether any set of rotatable blades that has a degree of camber (downward turn) over any extent thereof would effect a virtual disk shape having the properties of a lifting body, as now claimed. Appellant indicates that the present invention in Fig. 1b is in a flat configuration similar to the shape of standard helicopter blades (shown in the figure with slightly downwardly cambered ends). Are the downwardly cambered ends in Fig. 1b the shape of the ends of the referenced standard (prior art) helicopter blades? We note that in Fig. 13a, the blades turn down "slightly" near distal ends 116. If it is clarified that rotatable blades that have any degree of camber (downward turn) over any extent thereof would effect a virtual disk shape having the properties of a lifting body, as now claimed, the examiner should take this into account when considering prior art applicable to appellant's claims during any further prosecution. The examiner's attention is particularly drawn to the following patents that disclose helicopter blades having tip portions that droop downwardly, i.e., U.S. Patent No. 4,108,403, U.S. Patent No. 4,324,530, U.S. Patent No. 4,334,828, U.S. Patent No. 4,975,022, and U.S. Patent No. 5,320,494.

set of rotatable blades would, in fact, be capable of sweeping out a virtual disk shape having properties of a lifting body to generate lift.³ Additionally, it is not clear whether the recitation of the virtual disk being "pushed translationally" in claim 1 references the earlier recited "forward impetus" or "rapidly rotated." Being virtual, it is not clear that the virtual disk shape can be "pushed translationally" through real air to thereby generate real lift, as claimed; this recitation being akin to the disclosure that the virtual disk "cuts rapidly" through real, not virtual, air (specification, page 2). Claim 1 also appears to be inaccurate and incomplete in not setting forth

³ It is uncertain as to the scope of virtual disk shapes (swept out by a set of rotatable blades) having the properties of a lifting body now claimed. The specification offers symmetrical and asymmetrical blade variations which are disclosed as functioning to sweep out a (virtual) lifting body. For example, Figs. 2 and 2a depict a blade symmetrically deformed downwardly at distal ends that is indicated to sweep out a shape similar to that of an inverted flying disk, with the similar aerodynamic property of providing lift. Fig. 13a reveals symmetrical rigid blades that turn down slightly near distal end 116 and are disclosed as creating a lifting body that is "somewhat 'frisbee' shaped" when spun rapidly. In Fig. 13c, the symmetrical rigid blades (not distal ends) are disclosed as having a rigid downward camber. On the other hand, appellant indicates that an asymmetrical blade, such as in Fig. 3b, imparts an asymmetrical camber to the shape of a lifting body. The specification as a whole, however, does not provide an adequate basis for understanding the scope of the claimed disk shapes having the properties of a lifting body, as indicated above.

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what appears to be an essential attribute of the assembly for achieving lift, i.e., --horizontal-- translation. The specification, in the amendment to page 2, line 12, specifically sets forth that translational "horizontal" motion effects lift.⁴

In summary, this panel of the Board has procedurally reversed all of the anticipation rejections on appeal, and has introduced a new ground of rejection.

The decision of the examiner is reversed.

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

⁴ At odds with this recitation in the specification are the statements in the respective papers titled as declarations under § 1.132 of Morris, Miller, and Schrage submitted by appellant. The referenced statements clearly indicate that an angle of attack for the virtual disk is needed to generate lift. We note that each of the above declarations is not compliant with 37 CFR § 1.68 or Section 1746 of Title 28 of the United States Code; See MPEP Section 602.03.

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37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

REVERSED; 37 CFR § 41.50 (b)

IRWIN CHARLES COHEN
Administrative Patent Judge


LAWRENCE J. STAAB
Administrative Patent Judge


JENNIFER D. BAHR
Administrative Patent Judge

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